

**REMARKS**

Claims 1, 2, 4, 5, 9-13 and 18-21 are currently pending in this application.

Claim 13 has been withdrawn on the basis of the Response to Restriction Requirement made on July 20, 2009.

Claims 3, 6-8, 14-17 have been cancelled without prejudice or disclaimer to the subject matter contained therein. Cancelled claims 16 and 17 have been added as new claims 20 and 21 and now presented in proper US format.

Claim 1 has been amended. The amendments are solely for advancing prosecution. Applicants, by amending or cancelling any claims herein, make no admission as to the validity of any rejection made by the Examiner against any of these claims. Applicants reserve the right to reassert any of the claims canceled herein or the original claim scope of any claim amended herein, in a continuing application.

The amendments do not add any new matter within the meaning of 35 USC §132. Entry of the amendments is respectfully requested.

**1. Objection to the Abstract**

The Examiner has objected to the Abstract for exceeding 150 words. As amended, the Abstract does not exceed 150 words, complying with the requirement recited by the Examiner at page 2 of the Official Action. Withdrawal of this objection is respectfully requested.

**2. Objection to the Specification**

The Examiner has objected to the Specification for not having the section heading, "BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S)," "brief" description of the figures, and a priority statement. As amended, the Specification contains the heading, the brief description of Figures 1 and 2, and the priority statement. Withdrawal of this objection is respectfully requested.

3. Rejection under 35 USC §112, second paragraph

The Examiner has rejected claims 16 and 17 as being indefinite for failing to particularly point out and distinctly claim the subject matter Applicants regard as the invention.

Applicants submit that claims 16 and 17 have been cancelled. The subject matter contained in claims 16 and 17 has been added as new claims 20 and 21 respectively, both of which particularly point out and distinctly claim the subject matter of the instant application. Withdrawal of this rejection is, therefore, respectfully requested.

4. Rejection under 35 USC §103(a)

The Examiner has rejected claims 1-2, 4-5, 9-11 and 16-19 as being obvious over Camburn in U.S. Patent No. 5,552,175.

Applicants respectfully traverse this rejection.

To establish a *prima facie* case of obviousness, the Examiner must satisfy three requirements. First, as the U.S. Supreme Court held in *KSR International Co. v. Teleflex Inc.*, 550 U.S. 398 (2007), “a court must ask whether the improvement is more than the predictable use of prior art elements according to their established functions. ...it [may] be necessary for a court to look to interrelated teachings of multiple patents; the effects of demands known to the design community or present in the marketplace; and the background knowledge possessed by a person having ordinary skill in the art, all in order to determine whether there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue. ...it can be important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does... because inventions in most, if not all, instances rely upon building blocks long since uncovered, and claimed discoveries almost of necessity will be combinations of what, in some sense, is already known.” (*KSR*, 550 U.S. 398 at 417.) Second, the proposed modification of the prior art must have had a reasonable expectation of success, determined from the vantage point of the skilled artisan at the time the invention was made. *Amgen Inc. v. Chugai Pharm. Co.*, 18 USPQ2d 1016, 1023 (Fed. Cir. 1991). Lastly, the prior art references must teach or suggest all the limitations of the claims. *In re Wilson*, 165 USPQ 494, 496 (C.C.P.A.

1970).

Applicants respectfully submit that a *prima facie* case of obviousness has not been established in this application since all the limitations of the claims are not taught or suggested by the cited reference as required by *In re Wilson*.

Applicants submit that Camburn does **not teach** a method for treating vegetable material formed by member selected from the group consisting **whole oat grain, whole rye grain and an oat bran concentrate**, with a view to improving solubility in an aqueous phase of non-starch polysaccharides  $\beta$ -glucan or pentosan contained in the material. Camburn is directed to the manipulation of foodstuffs such as cereal and other plants and most specifically cereal **flours** or starches. See, for example, claim 12 of Camburn.

Applicants submit that the energies taught in Camburn thus concern the specific vegetable materials of the Examples, which are malted or biscuit wheat flour and tapioca starch. The materials of the Examples do not comprise vegetable material according to the instant claims, i.e. vegetable matter formed by the **whole grains of oat, rye or an oat bran concentrate**. In fact, **Camburn teaches that cereal flours with the bran removed are preferred**. See, col. 5, lines 33-36. As such, Applicants submit that the wheat flours according to the Examples of Camburn only contain **minor** amounts of non-starch polysaccharide according to the instant claims.

Furthermore, Camburn does not teach or suggest crushing vegetable material so as to damage cells containing  $\beta$ -glucan or pentosan and thereby improve their solubility in an aqueous phase. While the instant claims aim at improving solubility of  $\beta$ -glucan or pentosan present in oat and rye so as to enhance their capacity to generate viscosity, this is not taught or suggested in Camburn. Wheat flour freed from bran **does not contain any appreciable amount of non-starch polysaccharides** such as  $\beta$ -glucan, which occurs partially from the bran fraction of oat grains, or pentosan, which occurs in rye grains. **Oat and rye are not taught by Camburn**, which primarily teaches wheat. Wheat flour contains wheat starch, i.e. alpha-glucan, and is rich in amylopectin. Solubilizing alpha-glucan is the focus of Camburn. Therefore, a high viscosity would be an undesired disadvantage in food drinks of Camburn. Example 5 and Table 7 of the instant application demonstrate that extruded oat bran in contact with water generates a progressively growing

viscosity. However, amylopectin reduces viscosity growth. Therefore, the teachings of Camburn utilizing large amounts of wheat flour and high contents of amylopectin are **not capable of producing a high viscosity according to the instant subject matter**. See, Examples 1 and 2 of Camburn, showing viscosities of **4** and **3** mPAs, respectively, and Tables 2, 3 and 8 of the instant application, showing viscosity in excess of **300**, as well as Table 7, showing the low impact of increased amylopectin percentage on viscosity.

On these grounds, Applicants submit that Camburn fails to teach or suggest all of the limitations of the instant claims, as required by *In re Wilson*, and a *prima facie* case of obviousness has not been established by Camburn U.S. Patent No. 5,552,175 against the instant claims. Reconsideration and withdrawal of this rejection is therefore respectfully requested.

5. Rejection under 35 USC §103(a)

The Examiner has rejected claim 12 as obvious over Camburn in view of Lehtomaki et al., in U.S. Patent No. 5,106,640.

Applicants respectfully traverse this rejection.

Claim 1 is not obvious over Camburn for the reasons set forth above. Claim 12 depends from claim 1 and necessarily contains all of the limitations found in claim 1. Therefore, Camburn fails to teach or suggest all the limitations of claim 12. In addition, Camburn, as the Examiner expressly concedes, fails to teach that the material to be crushed is mixed with a greater amount of liquid medium and the mixture is homogenized under a pressure of 50 to 800 bar, as is required by claim 12.

Lehtomaki et al. do not cure the deficiencies of Camburn.

Lehtomaki et al. has been cited by the Examiner for the teaching of homogenizing material, such as barley, rapidly for the purpose of providing high yielding product. However, not only does Lehtomaki et al. fail to specifically teach the claimed pressure of 50 to 800 bar, but also Lehtomaki et al. fail to cure the deficiencies of Camburn with regard to the limitations of claim 1, as described above. Accordingly, Camburn and Lehtomaki et al., in combination, fail to teach all the limitations

of claim 12, as required by *In re Wilson*. Accordingly, a *prima facie* case of obviousness has not been established by the cited references against instant claim 12.

On these grounds, Applicants submit that claim 12 is not obvious over Camburn, in U.S. Patent No. 5,552, 175, in view of Lehtomaki et al., in U.S. Patent No. 5,106,640. Reconsideration and withdrawal of this rejection is therefore respectfully requested.

**CONCLUSION**

In view of the foregoing, Applicants submit that the pending claims are in condition for allowance. Early notice to that effect is earnestly solicited. The Examiner is invited to contact the undersigned attorney if it is believed that such contact will expedite the prosecution of the application.

In the event this paper is not timely filed, Applicants petition for an appropriate extension of time. Please charge any fee deficiency or credit any overpayment to Deposit Account No. 14-0112.

Respectfully submitted,

**THE NATH LAW GROUP**

/Tanya E. Harkins/  
Tanya E. Harkins  
Registration No. 52,993  
Mih Suhn Koh  
Registration No. 65,080  
Customer No. 20259

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**THE NATH LAW GROUP**  
112 S. West Street  
Alexandria, VA 22314  
Tel: (703) 548-6284  
Fax: (703) 683-8396